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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,524	06/30/2005	Jeroen Bastemeijer	2001-1366	7067

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EXAMINER

NOGUEROLA, ALEXANDER STEPHAN

ART UNIT	PAPER NUMBER
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1753

MAIL DATE	DELIVERY MODE
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06/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/517,524	BASTEMEIJER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	ALEX NOGUEROLA	1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on pre-amndt. of 12/13/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/13/2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows: the Combined Declaration and Power of Attorney for the instant application states that the instant application is a continuation-in-part of U.S. application no. 09/905,486. However, there is not at least one inventor listed for U.S. application no. 09/905,486 who is also a listed inventor for the instant application.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Selvaganapthy et al. (US 7,125,478 B2) ("Selvaganapthy"). Note that Selvaganapthy claims priority from U.S. provisional application 60/349,602, filed January 18, 2002.

Addressing claim 1, Selvaganapthy discloses an electrophoretic system comprising a separation system and a detection system,

the separation system comprising a channel (electrophoresis channel in Figure 1) and a first separation electrode located at a first end of the channel and a second separation electrode located at a second end of the channel (electrophoresis drive electrodes in Figure 2D, only one of which is labeled. Also see col. 12:16-17),

the separation system being arranged in such a way that a potential different can be applied between the first and second separation electrodes (col. 12:43-44 and col. 14:17),

the detection system, in use, being positioned close to the channel or inside the channel (Figures 1 and 4) characterized in that

the electrophoretic system comprises means to reduce a voltage difference between the separation system and the detection system in order to prevent electrical breakthrough between the separation system and the detection system, where the

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means to reduce the voltage difference comprises a DC-voltage source (as shown in Figure 4 and described in col. 13:10-45 the detection system, which has an associated DC power source, is configured so that the potentials of the detection electrodes float with the solution potential).

Addressing claim 2, for the additional limitation of this claim note the Potential Monitor in Figure 4.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Virtanen et al. (US 3,649,499) ("Virtanen").

Virtanen discloses an electrophoretic system comprising a separation system and a detection system,

the separation system comprising a channel (K) and a first separation electrode located at a first end of the channel (left "B" in Figure 2 and unlabeled electrode in left reservoir in Figure 4) and a second separation electrode located at a second end of the channel (right "B" in Figure 2 and unlabeled electrode in right reservoir in Figure 4),

the separation system being arranged in such a way that a potential difference can be applied between the first and second separation electrodes (Figures 2 and 4 and col. 02:69-71),

the detection system, in use, being positioned close to the channel or inside the channel (Figures 2 and 4) characterized in that

the electrophoretic system comprises means to reduce a voltage difference between the separation system and the detection system in order to prevent electrical breakthrough between the separation system and the detection system, where the means to reduce the voltage difference comprises a DC-voltage source (The power source for the detection system is effectively the same as that for the separation electrodes since the detection system measures the voltage created by the separation electrodes over a predetermined length of the channel. Note potentiometer resistance "P", which is used to compensate for any potential difference that may exist between the detection electrodes and the ground electrode vessel in Figure 2). As shown in Figures 1-4 and described col. 02:39-41 and col. 02:58 – col. 03:46, the purpose of the detection system is to measure the potential gradient along a selected length of the channel created by the first and second separation electrodes. The detection system is thus designed to draw minimal current from the channel. One of the detection electrodes may in fact be the same as a separation electrode, in which case, "The potential difference between electrode E and ground is made up *virtually in its entirety* by the voltage in the capillary over the distance 1 ... [emphasis added]".

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5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Huang et al. (EP 0475713 A1) ("Huang").

Huang discloses an electrophoretic system comprising a separation system and a detection system,

the separation system comprising a channel (400) and a first separation electrode located at a first end of the channel (440) and a second separation electrode (420) located at a second end of the channel (Figure 4),

the separation system being arranged in such a way that a potential difference can be applied between the first and second separation electrodes (Figure 4 and col. 05:04-05),

the detection system, in use, being positioned close to the channel (Figures 4 and 5) characterized in that

the electrophoretic system comprises means to reduce a voltage difference between the separation system and the detection system in order to prevent electrical breakthrough between the separation system and the detection system, where the means to reduce the voltage difference comprises a DC-voltage source (570). See col. 06:08-11, which discloses that the detection system was housed in a Faraday cage.

6. If a copy of a provisional application listed on the bottom portion of the accompanying Notice of References Cited (PTO-892) form is not included with this Office action and the PTO-892 has been annotated to indicate that the copy was not readily available, it is because the copy could not be readily obtained when the Office action was mailed. Should applicant desire a copy

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of such a provisional application, applicant should promptly request the copy from the Office of Public Records (OPR) in accordance with 37 CFR 1.14(a)(1)(iv), paying the required fee under 37 CFR 1.19(b)(1). If a copy is ordered from OPR, the shortened statutory period for reply to this Office action will not be reset under MPEP § 710.06 unless applicant can demonstrate a substantial delay by the Office in fulfilling the order for the copy of the provisional application. Where the applicant has been notified on the PTO-892 that a copy of the provisional application is not readily available, the provision of MPEP § 707.05(a) that a copy of the cited reference will be automatically furnished without charge will not apply.

### ***Claim Objections***

7. Claims 1, 6, and 11-13 are objected to because of the following informality:
  - a) Claim 11, line 11 -- the -- should be inserted at the beginning of the line, before "channel";
  - b) Claim 1, line 18: "comprise" should be -- comprises --; and
  - c) Claims 6 and 11-13: "electrode 3" should be -- electrode (3) --.

Appropriate correction is required.



***International Search Report for application no. PCT/NL03/00431 ("Search Report")***

8. GB 1196887 A, of which US patent 3,649,499 is a U. S. equivalent, was cited as an "X" reference in the Search Report against claim 1. US patent 3,649,499 has been used above to reject claim 1 under 35 U.S.C. 102(b).

9. EP 0475713 A was cited as an "X" reference in the Search Report against claims 1 and 2. It has been used above to reject claim 1 under 35 U.S.C. 102(b).

EP 0475713 A does not disclose providing at least one potential sensor close to the detection system, which controls the DC-voltage source, as required by claim 2.

***International Preliminary Examination Report for application no.***

***PCT/NL03/00431 ("Examination Report")***

10. Claims 1-9, all of the pending claims in the International application, were deemed novel and inventive in the Examination Report.

***Allowable Subject Matter***

11. Claims 3-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

a) Claims 3 and 4: each of the combination of limitations requires the detection system to comprise a first AC-voltage source. In Selvaganapthy, Virtanen, and Huang, the detection systems only implicitly include a DC-voltage source. See in Selvaganapthy col. 13:10-16; col. 14:44-48; and Figures 5-8; see in Virtanen Figures 1-4 and note "+" or "-" at either end of the channel (the power source for the detection system is effectively the same as that for the separation electrodes since the detection system measures the voltage created by the separation electrodes over a predetermined length of the channel by using a potentiometer resistor to compensate for certain potential differences); and see in Huang col. 06:07-08; col. 07:50-53.

- b) Claims 5-16 depend directly or indirectly from allowable claim 4 or allowable claim 3.

***Information Disclosure Statement ("IDS")***

13. Applicants are requested to provided copies of the Bastemeijer article and the Park article cited on the IDS of December 13, 2004, but not submitted.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX NOGUEROLA whose telephone number is (571) 272-1343. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NAM NGUYEN can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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